BEFORE THE

Federal Communications Commission

WASHINGTON, D.C.

In the Matter of	)	
	)	
Amendment of Part 20 and 24 of the Commission's Rules -- Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap	)	WT Docket 96-59
	)	
Amendment of the Commission's Cellular PCS Cross-Ownership Rule	)	GN Docket 90-314
	)	

COMMENTS OF THE
CELLULAR TELECOMMUNICATIONS INDUSTRY ASSOCIATION

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COMMENTS OF THE
CELLULAR TELECOMMUNICATIONS INDUSTRY ASSOCIATION

The Cellular Telecommunications Industry Association ("CTIA")[1] hereby submits its Comments in the above-captioned proceeding.[2]

I. INTRODUCTION AND SUMMARY

CTIA supports the Commission's efforts to revisit its cellular-PCS cross-ownership restriction and 20 percent attribution standard. CTIA consistently has maintained that certain aspects of the Commission's cross-ownership and attribution thresholds should be relaxed to ensure that the

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[1] CTIA is the international organization of the wireless communications industry for both wireless carriers and manufacturers. Membership in the association covers all Commercial Mobile Radio Service ("CMRS") providers, including cellular, personal communications services ("PCS"), enhanced specialized mobile radio, and mobile satellite services.

[2] Amendment of Part 20 and 24 of the Commission's Rules -- Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap; Amendment of the Commission's Cellular PCS Cross-Ownership Rule, Notice of Proposed Rule Making in WT Docket 96-59 and GN Docket 90-314, FCC 96-119 (released March 20, 1996) ("Notice").

public interest in an efficient mobile telecommunications system is served to the maximum extent feasible.

In this regard, CTIA proposes that the Commission take the following action:

- eliminate the cellular-PCS cross-ownership provisions which limit cellular carriers to 35 MHz of CMRS spectrum until the year 2000;
- eliminate the 40 MHz PCS cap applicable to aggregations of PCS and cellular spectrum; and
- maintain the 45 MHz CMRS cap, but increase the 10 percent overlap restriction to 40 percent, raise the 20 percent attribution threshold to 30-35 percent and adopt a single majority shareholder exception to the attribution standard to avoid discouraging passive investment.

Such action will maximize CMRS investment, economic efficiency, and consumer welfare consistent with the Commission's commitment "to increasing competition."[3]

CTIA attaches as an Appendix to these Comments an economic analysis it submitted previously by Stanley M. Besen and William B. Burnett of Charles River Associates entitled "An Antitrust Analysis of the Market for Mobile Telecommunications Services" (December 8, 1993) ("Besen and Burnett").[4] While the CMRS market

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[3] Notice at ¶ 9.

[4] Besen and Burnett analyzed Commission proposals, eventually adopted, sharply limiting cellular-PCS cross-ownership. They concluded that the proposals were excessively restrictive. Their specific focus was the possibility of raising the proposed interim 35 MHz ceiling to 40 MHz immediately. CTIA is recommending that the Commission take advantage of the opportunity presented by Cincinnati Bell Telephone Co. v. FCC, 69 F.3d 752 (6th Cir. 1995) to replace the suspect cross-ownership rules by making the 45 MHz CMRS spectrum cap generally applicable. We are attaching the 1993 Besen and Burnett study (continued...)

has experienced rapid development since the preparation of this analysis, it remains clear that with the proper application of antitrust and economic principles, current restrictions on cellular and PCS licensee ownership should be significantly relaxed.[5]

II. THE COMMISSION SHOULD RELAX RESTRICTIONS UPON CELLULAR PARTICIPATION IN PCS IN FURTHERANCE OF THE SIXTH CIRCUIT'S MANDATE.

A. Sound Principles of Antitrust and Economic Theory Dictate Against Imposing Stringent 35 MHz or 40 MHz Caps Upon CMRS Carriers.

In response to the Sixth Circuit's mandate,[6] the Commission has commenced a wholesale re-examination of a series of eligibility restrictions on cellular participation in PCS.[7] The

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[4](...continued)
because we believe it is still relevant in analyzing the issues raised in this proceeding. The Commission will not have any difficulty with the extrapolation from a 40 MHz spectrum ceiling to a 45 MHz spectrum ceiling.

[5] In addition, the Commission's proposals to, among other things: (1) delete the requirement for audited financial statements, (2) relax the current five-year transfer restriction on DE licenses, and (3) limit the ownership information reporting requirements, see Notice at ¶¶ 7-8, will also remove unnecessary and costly regulatory burdens for PCS carriers, enhancing investment, efficiency, and competition consistent with congressional mandate.

[6] Cincinnati Bell Tel Co. v. FCC, 69 F.3d 752 (6th Cir. 1995).

[7] Specifically, the Commission's rules require that where PCS and cellular service areas overlap, that is, 10 or more percent of the population of a PCS service area (MTA or BTA) is within the cellular system's existing coverage area (i.e., the CGSA), the cellular operator is restricted to a 10 MHz PCS BTA license until the year 2000, and to an additional 5 MHz for a total of 15 MHz of PCS spectrum after the year 2000. Ownership interests of 20 percent or more in a cellular licensee are
(continued...)

Commission's rationale for placing such limitations on current cellular licensees was specifically rejected by the Sixth Circuit. It was based upon concerns about the "potential for unfair competition" and the exercise of "undue market power" by a cellular licensee should it acquire additional spectrum.[8] The Commission has consistently recognized, however, that "participation by cellular operators in PCS offers the potential to promote the early development of PCS by taking advantage of cellular providers' expertise, economies of scope between PCS and cellular service, and existing infrastructures."[9]

The tension arising between these objectives can be resolved by applying principles developed in the antitrust area. Specifically, antitrust methodology concerning the relevant geographic market demonstrates that concerns over market concentration and possible collusion among PCS providers do not warrant the current restrictions. Moreover, antitrust law establishes that a firm's market share should be of concern to the Commission only when it reaches a level of 30-35 percent or

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[7](...continued)
attributable and thus trigger application of the 10 percent overlap rule. See 47 CFR § 24.204.

See Besen and Burnett at 56-57 (permitting cellular firms to hold 40 MHz is within acceptable concentration levels under the Department of Justice and Federal Trade Commission Horizontal Merger Guidelines (Apr. 2, 1992) ("Merger Guidelines")).

[8] See Amendment of the Commission's Rules To Establish New Personal Communications Services, Second Report and Order in Gen. Docket 90-314, 8 FCC Rcd. 7700 (1993) ("PCS Order").

[9] PCS Order at ¶ 104.

more. Finally, antitrust law illustrates that the risks to innovation from erring on the side of restrictive eligibility rules are greater than the risks of increased concentration incurred by erring in the other direction.

The 1993 analysis by Besen and Burnett indicated that the eligibility requirements imposed by the Commission were unduly restrictive. Under the existing rules, many acquisitions of PCS licenses by cellular operators that are unlikely to increase concentration to levels traditionally suspect under the antitrust laws are nevertheless prohibited. Moreover, as the 1993 Besen and Burnett analysis established, even if cellular-PCS cross-ownership exceeds the Merger Guidelines, other factors militate against collusion and the exercise of market power.

1. The Geographic Market Analysis for Measuring Possible Anticompetitive Effects of Increased Concentration Supports a Relaxed Overlap Rule.

Using the methodology found in the Merger Guidelines, Besen and Burnett demonstrated that the appropriate geographic market for measuring possible anticompetitive effects from increased concentration is likely to be large.[10] This conclusion follows in part from the requirements of § 202(a) of the Communications Act.[11] The Commission has uniformly held that discrimination on

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[10] Besen and Burnett at 24-28.

[11] Id. at 14.

a geographic basis is within the proscription of § 202(a) and hence illegal under the Act.[12]

In examining the Commission's 10 percent overlap restriction (which limits cellular companies from holding a 30 MHz MTA license in areas of overlap), Besen and Burnett noted that so long as a firm cannot price discriminate among customers in different BTAs, then cellular carriers with a 55 MHz allocation[13] in a limited geographic area cannot "exercise market power because such a firm, either acting alone or in concert with other firms, would not be able profitably to raise prices."[14] The geographic market analysis presented by Besen and Burnett demonstrated that overall concentration in the relevant geographic market, and hence the risk of collusion, is likely to be lower than is first apparent. Thus, the 10 percent overlap rule, which is designed to prevent the exercise of undue market power, should be relaxed.

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[12] See In re AT&T Communications, Tariff F.C.C. No. 15, Competitive Pricing Plan 22, 7 FCC Rcd. 4636 (1992); In re AT&T Communications, Revisions to Tariff F.C.C. No. 12, 4 FCC Rcd. 4932, 4938 (1989); Department of Public Services of Washington v. Pacific Telephone & Telegraph Co., 8 FCC 342 (1941). Courts have upheld the Commission's interpretation that § 202(a) prohibits all forms of price discrimination not based on cost-of-service differences. See, e.g., Western Union International v. F.C.C., 568 F.2d 1012 (2d Cir. 1977), cert. denied, 436 U.S. 944 (1978).

[13] The 55 MHz figure includes 25 MHz of cellular spectrum and a 30 MHz MTA license.

[14] Besen and Burnett at 58.

2. Antitrust Analysis Supports the Removal of the Cellular-PCS Attribution Standard.

Principles of antitrust law also support the removal of the cellular-PCS attribution standard. The Merger Guidelines establish a 35 percent market share as the threshold for unilateral exercise of market power.[15] This percentage is consistent with the Supreme Court's determination in Jefferson Parish Hospital v. Hyde,[16] that a firm with a market share of less than 30 percent cannot possess market power. Because the Commission's 40 MHz limit would result in a market share of only 23.5 percent,[17] even a substantially higher percentage of ownership than is permitted by the Commission is unlikely to raise serious anticompetitive concerns.

The 23.5 percent figure is derived from the "worst case" scenario where the available mobile telecommunications spectrum is limited to 170 MHz (40/170 = 23.5). The 170 MHz includes 120 MHz allocated to broadband PCS and 50 MHz allocated to cellular services.[18] Such a figure, though, is conservative considering that it does not take into account the additional spectrum allocated to SMR, and the spectrum recently allocated to new

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[15] See Merger Guidelines § 2.211.

[16] 466 U.S. 2, 46 (1984) (plurality opinion).

[17] See Besen and Burnett at 46-49.

[18] Although Besen and Burnett did not test for a 45 MHz limit -- the ceiling CTIA recommends here -- it would also produce a share of only 26.5 percent, still below the traditional antitrust threshold for harmful single firm conduct.

general wireless communications services ("GWCS"), and other CMRS services.[19]

In addition to the unilateral exercise of market power, there exists, as the Merger Guidelines discuss at length, the danger of increased prices or decreased output through express or tacit collusion among competitors which may be enhanced by increased market concentration. However, an extensive analysis by Besen and Burnett[20] demonstrated that the threshold concentration levels posited by the Merger Guidelines as likely to lead to an enhanced opportunity for collusion are unlikely to be met in the mobile telecommunications services market even if the Commission substantially relaxes its proposed limitations on cellular ownership of PCS spectrum. Moreover, even if these concentration levels are reached, other industry factors relevant to the mobile telecommunications services market, including: (1) rapid technological progress; (2) an increased demand for mobile services; (3) the heterogeneous nature of potential services; and (4) an expanding fringe of smaller firms (e.g., SMRs, satellite providers), render collusion among cellular providers unlikely.[21] Thus, since anticompetitive effects are unlikely even with complete control, the cellular attribution standard can safely be

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[19] See Federal Communications Commission: Plan for Reallocated Spectrum, at ¶¶ 20-21, and generally (rel. March 22, 1996).

[20] See Besen and Burnett at 35-49.

[21] See Merger Guidelines §§ 1.521, 2.1; Besen and Burnett at 49-55.

increased beyond the percentage normally deemed to constitute control when higher market shares are involved.

3. The Current Restrictions on Cellular-PCS Eligibility Carry the Distinct Risk of Decreasing Dynamic Efficiencies in the Mobile Services Marketplace.

In the final analysis, arbitrary limits on cellular-PCS eligibility due to concerns about the undue exercise of market power should not amount to a needlessly strict "numbers game," ruling out an entire class of possible cellular-PCS combinations because an artificial boundary has been crossed.[22] The real danger, as the Commission has noted, is that innovation and economies of scope may be irretrievably lost by strict application of such rules.[23] Indeed, innovative efficiency, according to one commentator, should be the primary goal of antitrust and related laws even if this results in some deferral of consumer welfare due to initially diminished interfirm rivalry.[24] Early in the modern antitrust revolution, commentators questioned the use of static concentration models in technologically dynamic industries.[25] Later, Professors Ordover

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[22] See United States v. General Dynamics Corp., 415 U.S. 486 (1974).

[23] See Merger Guidelines § 4; Besen and Burnett at 55-56.

[24] Joseph Brodley, The Economic Goals of Antitrust: Efficiency, Consumer Welfare, and Technological Progress, 62 N.Y.U.L. Rev. 1020 (1987).

[25] J. Fred Weston, Changing Environments and New Concepts of Firms and Markets and Frederick M. Rowe, Antitrust and Vanishing Boundaries, both in New Technologies, Competition and Antitrust, Ninth Conference on Antitrust Issues in Today's Economy, The Conference Board, 9, 14 and 25, 26 (1970).

and Willig more rigorously developed the argument against the application of static economic theory (such as market share and concentration analysis) to technologically dynamic industries:

> The economic foundations of antitrust policy rest largely on static analysis, while the foundations of our economy have become increasingly dynamic. It may be illogical and socially harmful to apply the static equilibrium framework to industries where technological progress is rapid and competition is driven by product and process innovation. To be sure, current product market structure in such industries affects current pricing decisions, but it may also affect the rate and direction of inventive activity. These latter effects may be the more important, as 'over the long run the gains to society from continuing innovation are vastly greater than those associated with competitive pricing.'[26]

They conclude that:

> [M]ergers in R&D-intensive industries should be assessed under guidelines that specifically account for the dynamic effects that may be of critical significance there. Insensitive application of static merger guidelines either may permit mergers with likely anticompetitive future effects to go unchallenged or may halt mergers that would benefit society by accelerating innovation and enhancing future competition.[27]

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[26] Janusz A. Ordover and Robert D. Willig, Antitrust for High-Technology Industries: Assessing Research Joint Ventures and Mergers, 28 J. L. & Econ. 311, 311-313 (1985) (quoting Richard Nelson & Sidney Winter, The Schumpeterian Tradeoff Revisited, 73 Am. Econ. Rev. 114 (1982)) ("Ordover and Willig"). See generally Joseph Schumpeter, Capitalism, Socialism, and Democracy (1950); Arnold Harberg, Monopoly and Resource Allocation, 44 Am. Econ. Rev. 77 (1954).

[27] Ordover and Willig at 313. Professors Ordover and Baumol subsequently reiterated the conclusion that "mergers in high-technology industries, in which technologies and products are short-lived, should raise fewer concerns than would similar mergers in industries which have entered their stable phase." Janusz A. Ordover and William Baumol, Antitrust Policy and High-Technology Industries, 4 Oxford Rev. Econ. Policy 13, 32 (1988).

Moreover, maximizing technological innovation without increasing the risk of collusion can be accomplished more readily in technologically dynamic industries for, as some commentators demonstrate, where products and services are subject to rapid technological change, collusion is more difficult.[28]

That the prevention of increases in concentration should be subordinated to other goals is echoed by Professors Farrell and Shapiro who demonstrate that public policy should encourage the acquisition by an efficient firm of a smaller, less efficient firm, even when it significantly increases concentration, because overall efficiency, and thus consumer welfare, is thereby increased.[29]

These considerations both argue against rigid limitations of the type presently embedded in the rules and demonstrate conclusively the very real danger of sacrificing innovation and efficiencies.

B. The Commission Should Relax the CMRS 45 MHz Cap Eligibility and Attribution Restrictions to Maximize Consumer Welfare.

As discussed above, the Commission's primary concern in adopting the 10 percent overlap restriction and the 20 percent attribution limit for cellular providers was to avoid the

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[28] See, e.g., George A. Hay, Oligopoly, Shared Monopoly, and Antitrust Law, 67 Cornell L. Rev. 439, 449-450 (1982). See also Besen and Burnett at 50-51.

[29] Joseph Farrell and Carl Shapiro, Horizontal Mergers: An Equilibrium Analysis, 80 Am. Econ. Rev. 107, 108 (1990)

exercise of "undue market power."[30] The current 20 percent cellular attribution standard was designed to account for the partial, passive ownership interests in cellular licenses arising from the Commission's early settlements policy.[31] The foregoing analysis demonstrates that the current eligibility restrictions are more rigorous than necessary to achieve their desired purpose. Thus, CTIA recommends that the Commission modify its 45 MHz CMRS spectrum cap eligibility rules by:

- increasing the 10 percent overlap to 40 percent;
- increasing the 20 percent cellular/PCS/SMR attribution threshold to 30-35 percent; and
- adopting a single majority shareholder rule to protect the interests of passive investors.

1. The 10 Percent Overlap Limitation Should Be Increased to a 40 Percent Threshold.

The current 10 percent overlap limitation is too restrictive and creates unintended consequences for both large and small cellular companies. The threshold can safely be increased to 40 percent without reducing consumer welfare.

The Besen and Burnett analysis demonstrated that the 10 percent population overlap limitation is overly restrictive and handicaps current cellular licensees.[32] In order for the weighted average market share of a cellular licensee acquiring a 30 MHz PCS license to exceed the 23.5% market share allowed a

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30 PCS Order at ¶¶ 105, 107.

31 Id. at ¶ 107.

32 See Besen and Burnett at 46-49, 57-58.

non-cellular licensee, the population overlap would have to exceed 40 percent. If the cellular licensee's geographic service area ("CGSA") is partially outside its PCS service area, which is highly probable, the overlap would have to be even greater for the cellular licensee's overall market share to exceed 23.5%. Seen in this light, a 40 percent overlap is actually a conservative threshold.

A 10 percent overlap restriction constrains not only the largest cellular companies, but also mid-sized and small cellular companies, and many companies not traditionally thought of as cellular companies.

The ideal approach, as CTIA previously has observed, would be to judge spectrum combinations on a case-by-case basis taking into account all of the variables that influence overall market share in an overlap situation, including the service area overlap, the populations in their respective service areas, and the quantity of spectrum currently allocated to and the quantity sought to be acquired by the licensee. However, this is a situation where the ideal must yield to the practical. In establishing general rules for eligibility to participate in the D, E, and F block auctions, it is clear that an overlap standard of at least 40 percent would adequately protect the public from the exercise of undue market power while not unduly hampering innovation and increased efficiency in this emerging industry.

2. The 20 Percent Attribution Standard Should Be Raised to a 30-35 Percent Threshold.

The attribution standard should be raised from 20 percent to at least 30-35 percent because the danger of undue market power in a single firm is sharply constrained by the 45 MHz limit on CMRS spectrum -- which should be generally applicable. Even a controlling shareholder is limited to a market share of 26.5 percent (i.e., 45 MHz) -- a percentage well below the 35 percent threshold recognized to be necessary for undue market power. Where the benefits are limited and the costs high, as is the case here, the Commission should elect a less confining attribution standard.[33]

The Commission's de facto control jurisprudence supports an increased attribution threshold. Rarely has the Commission found shares as low as 20 percent to be sufficient to constitute de facto control.[34] In the vibrant circumstances of the CMRS industry, the Commission should adjust the 20 percent attribution rule. As the analysis set forth above demonstrates, there is not

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[33] See Motor Vehicle Mfr. Ass'n of the United States, Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 54-55 (1983).

[34] See, e.g., News Internat'l PLC, 97 F.C.C.2d 349 (1984) (20% interest convertible to 42.5% interest not considered control in closely held corporation); Columbia Broadcasting System, 7 R.R. 298 (1951) (26.6% interest not considered control); see generally Stephen F. Sewell, Assignments and Transfers of Control of FCC Authorizations Under Section 310(d) of the Communications Act of 1934, 43 Fed. Comm. L. J. 277, 296-302 (July 1991).

a strong basis for concern over market power in the general case.[35] The present 20 percent attribution rule precludes much beneficial activity while preventing very little undesirable activity.

In addition, to account for the numerous passive investors within the CMRS industry, a function both of cellular market settlement and PCS designated-entity rules, the Commission should adopt a "single majority shareholder" exception to its 30-35 percent attribution standard.[36] Thus, to the extent that there is a greater than 50 percent owner in a licensee (as with, for example, a C-block small business PCS applicant), all other ownership interests (including those greater than 35 percent) would be non-cognizable.

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[35] Moreover, this case does not involve the "diversity of programming" concerns which motivate the Commission's adoption of substantially smaller attributable ownership thresholds (i.e., 5 percent) as found in the broadcast and cable industry rules.

[36] The single majority shareholder exception, which arose under the broadcast attribution rules, relies upon the theory that if a single majority shareholder exists, all other minority interests should not be attributable because the minority shareholder, even acting in collaboration with other minority shareholders, lacks the ability to exert control over the licensee on the basis of shares held. See Attribution of Ownership Interests, Report and Order, 97 FCC 2d 997, 1008-1009 (1984). In the broadcast context, this exception applies solely to corporate entities. CTIA submits that, in the PCS context, such an exception should apply regardless of the business form used.

III. CONCLUSION

For these reasons, CTIA respectfully requests that the Commission: (1) eliminate the cellular-PCS cross-ownership restriction, (2) eliminate the 40 MHz cellular-PCS cap, and (3) with regard to the 45 MHz CMRS cap, which would be retained, relax the current overlap restriction from 10 percent to 40 percent, relax the current attribution thresholds from 20 percent to 30-35 percent and adopt a single-majority shareholder exception for passive investors.

Respectfully submitted,

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April 15, 1996

AN ANTITRUST ANALYSIS OF THE MARKET FOR MOBILE TELECOMMUNICATIONS SERVICES

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December 8, 1993

I. Introduction and Summary of Conclusions

The Federal Communications Commission recently released its Second Report and Order, In the Matter of Amendment of the Commission's Rules to Establish New Personal Communications Services.[1] The Cellular Telecommunications Industry Association (CTIA) has asked CRA to analyze certain antitrust aspects of the FCC's plans for Personal Communications Services (PCS).[2] Our analysis evaluates the appropriateness of, and need for, several of the limitations placed on cellular operators in bidding for licenses to use the portions of the radio frequency spectrum that have been allocated for the provision of mobile telecommunications services.

Under FCC rules, incumbent cellular operators may not acquire licenses in the forthcoming PCS auctions for more than 10 MHz in addition to their current holdings of 25 MHz in any region where their current service areas cover 10 percent or more of the population. New competitors may acquire licenses for up to 40 MHz of bandwidth. This restriction on incumbents means that, if a cellular operator currently holds licenses for even a moderately

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[1]GEN Docket No. 90-314, Issued October 22, 1993 (hereinafter Second Report and Order). The radio spectrum allocated for personal communications services is to be assigned by competitive bidding. See Notice of Proposed Rule Making, In the Matter of the Implementation of Section 309(j) of the Communications Act Competitive Bidding, PP Docket No. 93-253, Issued October 12, 1993. According to the Second Report and Order, cellular and PCS operators are expected to offer similar, if not identical, services; PCS firms will, therefore, compete directly with cellular companies. Because both sets of firms are expected to offer the same services and compete for the same customers, in order to eliminate confusion we refer to these offerings as mobile telecommunications services. Mobile telecommunications services include the full range of offerings that may be provided, by either existing cellular or new PCS companies.

[2]In two earlier papers filed with the FCC, one of the present authors addressed several similar issues. See S.M. Besen, R.J. Larner, and J. Murdoch, "An Economic Analysis of Entry by Cellular Operators in Personal Communications Services," November 1992; and, by the same authors, "The Cellular Service Industry: Performance and Competition," November 1992.

populated region within a Major Trading Area (MTA), it may not bid for licenses for the use of either Channel A or B (30 Mhz each).

Evaluation of the economic implications of the Commission's rules requires an antitrust analysis of the market for mobile telecommunications services. For example, analysis of the effects of the rule that limits cellular carriers to bidding for a license for the use of a single 10 MHz band in their territories requires a definition of the relevant geographic market within which mobile services providers compete. Similarly, an evaluation of the effects of permitting cellular operators to acquire licenses for additional bandwidth in the PCS auction, or in the aftermarket, requires product and geographic market definitions, as well as calculations of market shares and concentration before and after the acquisitions. Finally, an overall evaluation of competition in this industry must take into account the wide variety of factors that influence and determine market performance in addition to market structure. Because of the need to discuss a full range of these antitrust issues, this report addresses the following:

- the general principles underlying an antitrust analysis. Basically, we assess why public policy seeks to rely on competition, and under what circumstances competition is likely to lead to economically desirable outcomes (Section II);
- the relevant antitrust product and geographic markets within which PCS specifically, and mobile telecommunications services generally, should be evaluated (Section III);
- the proper measure of market shares, and the evaluation of a range of possible market structures for mobile telecommunications services (Sections IV and V); and
- whether or not the market for mobile telecommunications services is likely to be competitive (Section VI).

We reach the following conclusions:

- The product market for mobile telecommunications services is broad. Available evidence suggests that firms offering mobile services will be able to shift among a wide range of different services rapidly and at relatively low cost. The ability of firms to change the services they provide in response to price and profit opportunities ties virtually all of the various mobile telecommunications services into one broad market; narrow, relevant antitrust markets limited to specific services would be exceptional. To the extent that there is some limited class of services that has special requirements (very broad spectrum needs, for example), such services might constitute more narrow markets and, therefore, require individual attention.

- The scope of the geographic market for mobile telecommunications services depends on whether providers may charge different prices to customers in different regions. If price discrimination is permitted, among, for example, Basic Trading Areas (BTAs), then narrow regions like BTAs may be relevant geographic markets. If, however, price discrimination is barred, the geographic market will often be much broader, typically becoming substantially larger than a BTA.

- Within the broad market for mobile telecommunications services, the capacity to transmit information is the appropriate measure of market share. Bandwidth, however, is not necessarily an appropriate measure of capacity. The ability to transmit information within a given amount of spectrum is determined in part by the technology adopted, and newer, digital systems have a far greater capacity than do older, analog ones. Because existing cellular operators will, for some time, be required to continue to serve customers that have invested in analog equipment, they will have lower effective capacity and market share per unit of allocated bandwidth than will firms with licenses for the same amount of bandwidth that employ only digital equipment. Incumbent cellular operators will suffer this "analog handicap" for as long as they must continue to serve customers using the old technology. The share of the mobile telecommunications market held by cellular firms will thus be less than their share of assigned bandwidth.

- Significant efficiencies will be obtained if cellular operators are permitted to provide Personal Communications Services. These efficiencies stem from economies of scope, cost savings that result when the same firm provides more than one service. Some of these efficiencies would be sacrificed if limits were placed on the acquisition of PCS licenses by incumbent cellular operators.

- Contrasted with the standards in the "Department of Justice and Federal Trade Commission Horizontal Merger Guidelines," and current legal enforcement of the antitrust laws, the market structure standards adopted in the Second Report and Order are both overly rigid and conservative. For example, the current rules limit the amount of spectrum that may be licensed to an incumbent cellular carrier in the PCS auctions to 10 MHz. Depending on the assumptions adopted, this bandwidth would give an

incumbent cellular operator between 17 and 20 percent of market capacity. Yet the Merger Guidelines pose no strict bar to acquisitions by firms with market shares in this range. Indeed, the Merger Guidelines evince no concern with acquisitions that leave a single firm with a post-acquisition share of less than 35 percent, assuming other conditions are met.

- Even in the most highly concentrated market structure possible under pending PCS rules, the Merger Guidelines would not bar, and might not even warrant investigation of, significant acquisitions of additional capacity by incumbent cellular operators. For example, even if there are only five or six mobile service providers, the acquisition of an additional 5 MHz of spectrum by a cellular operator that already has 35 MHz would not violate the Guidelines. And, if the added 5 MHz of capacity were acquired from a competitor with 35 or 40 MHz allocation, measured concentration might remain the same, or even decline.

- Even if the number of mobile service competitors were quite small, there is a variety of factors that act to inhibit the exercise of market power. Key features of the emerging market for mobile telecommunications services are the anticipated tremendous dynamism of the technologies that may be available and the range of services that may be offered. Such market dynamism may, for example, result in firms continuing to adopt new, more capable technologies that lead to rapid expansion of industry capacity. Moreover, such capacity expansion may also come from a rapidly expanding competitive fringe, which today is dramatically illustrated by the consolidation and digitization of SMR operators to provide an array of mobile telecommunications services. Combined with rapid market growth, these factors tend to limit anticompetitive behavior by mobile telecommunications service providers.

- In many instances, the courts have adopted more liberal and flexible standards for evaluating mergers than those articulated in the Merger Guidelines, rejecting numerous attempts by the antitrust authorities to block proposed transactions. Generally, the courts have found analysis of market shares and concentration to constitute only one factor, albeit an important one, in evaluating mergers, and have placed great weight on other, non-structural market conditions. Many of the factors commonly recognized to reduce the likelihood of anticompetitive behavior are present in the market for mobile telecommunications services.

- We conclude that rules governing the structure of the market for mobile services, under the terms currently contemplated in the Second Report and Order, may prevent a variety of merger and acquisition transactions that do not threaten to reduce competition or raise prices of mobile telecommunications services and that in fact promise significant efficiencies. Many such transactions may be unobjectionable on purely structural grounds. Moreover, when considered in light of other factors that inhibit coordinated behavior and collusion, a more flexible rule of reason approach is warranted. We would

urge that the Commission entertain the notion that incumbent cellular operators be allowed to acquire additional spectrum after the PCS auctions are conducted.

II. The Role of Competition

Economic policy seeks to rely on competition for a variety of reasons. When firms compete, prices are driven toward costs, society's resources are efficiently allocated among the various goods and services that can be produced, and consumers must pay no more than necessary to secure these products. Moreover, firms in competitive markets are under continuing pressure to adopt new products, services, technologies, and cost-reducing innovations, whose benefits are passed on to consumers.[3] When firms do not compete, the principal fears are that prices will rise above costs, resources will be inefficiently allocated, and income will be transferred from consumers to producers.[4]

Analyses that identify the benefits of competition typically begin with an examination of markets in which there is a large number of firms, each selling a homogeneous or relatively undifferentiated product, and where the entry or exit of firms is either free or easy. In such a setting, no single firm or group of firms has the ability to raise price above cost. No single firm can raise prices to consumers without rapidly losing sales to rivals —either existing firms or new entrants — and there are so many competitors that no group of them successfully can coordinate their behavior — either tacitly or overtly — to raise prices above competitive levels.

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[3]For a discussion of the benefits of competition, and the harm associated with monopoly, see F.M. Scherer and D. Ross, Industrial Market Structure and Economic Performance, Third Edition (Boston: Houghton Mifflin, 1990), pp. 18-29.

[4]We recognize that the Commission is also concerned with diversity of ideas and diversity of ownership. Our focus is solely on the economic effects of competition in the provision of mobile telecommunications services, since issues of diversity of ideas do not arise here. We do not address the issue of ownership diversity.

Moreover, in markets with many competitors, firms are under constant pressure to offer consumers a wide range of products and/or services, or else face the threat that rival firms or new entrants will do so. Finally, firms in competitive markets are driven to introduce cost-reducing technologies in order to avoid being placed at a cost disadvantage relative to their rivals.

In many real-world markets, the number of rivals is smaller than that identified in the textbook treatment of competition. It does not follow, however, that economic policy should attempt to maintain a market structure with a very large number of firms. For one thing, this might involve the sacrifice of significant cost savings from exploiting economies of scale and scope. Moreover, most economists believe that many of the desirable outcomes resulting from market structures in which there are large numbers of firms can be achieved even if the number of firms in a market falls short of the competitive ideal. In practice, the ability of an individual firm or group of firms to raise prices is limited by a wide variety of factors. A single firm must have a large share of a market before it can unilaterally raise prices. And even in markets where there are relatively few firms, coordination of behavior to raise prices is often very difficult. Thus, while economists generally believe that the likelihood of noncompetitive, coordinated behavior is limited when the number of firms is relatively large, markets may behave very competitively even when they are composed of only a few firms and concentration is relatively high.

Evaluating competition in markets composed of only a few firms is challenging. When the number of firms is limited and market concentration is high, there is no single, easily applied rule for assessing the extent of competition, or of determining how far market performance